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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,489	11/13/2001	Chander P. Chawla	214453	5624

23460 7590 06/14/2005

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EXAMINER

JACKSON, MONIQUE R

ART UNIT PAPER NUMBER

1773

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,489

Applicant(s)

CHAWLA ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-24, 26-32, 34, 35, 37, 38, 40, 41, 43-49, 51, 52, 54, 55, 57, 58 and 60-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1-3,5-24,26-32,34,35,37,38,40,41,43-49,51,52,54,55,57,58 and 60-65.

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/05 has been entered. Claims 4, 25, 33, 36, 42, 50, 53, 56, and 59 have been canceled. Claims 1-3, 5-24, 26-32, 34-35, 37-38, 40-41, 43-49, 51-52, 54-55, 57-58, and 60-65 are pending in the applications.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 51 and 52 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 51 and 52 depend upon canceled claim 4 and hence do not further limit a previous claim pending in the application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-3, 5-24, 26-32, 34-35, 37-38, 40-41, 43-49, 51-52, 54-55, 57-58, and 60-65 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification

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in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims as amended recite that the components are contained in an amount that “does not reduce the cure rate or overall cure of the composition”. Though the instant disclosure at the time of filing has support for the limitation with respect to “does not reduce the cure rate”, there does not appear to be support for the limitation “overall cure of the composition”. In addition, it is noted that Claim 32 recites the limitation “no more than 1 wt%...the amount being...insufficient to reduce the cure rate or overall cure of the composition” however it is noted that the instant disclosure does not teach or reasonably suggest an endpoint of 1wt% and in fact, teaches away from this value by teaching that an amount of 0.5wt% or less is the amount that does not reduce the cure rate of the composition.

6. Claims 1-3, 5-24, 26-32, 34-35, 37-38, 40-41, 43-49, 51-52, 54-55, 57-58, and 60-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons previously recited. A claim in which one ingredient is defined so broadly that it reads upon a second does not meet the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Ferm and Boynton*, 162 USPQ (BdPatApp & Int 1969.) In the instant case, though the Applicant has added the terms “a first component” before photoinitiator and “a second” component, it remains that the terms “photoinitiator” and “component selected from the group consisting of acyclic thiols, heterocyclic compounds of the formula $R-SH$ or R^1-R^2 , and mixtures thereof” are still so broadly defined that they may read upon one another and hence one having ordinary skill in the art would not be reasonably apprised of the scope of the claimed invention and could not

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interpret the metes and bounds of the claim so as to understand how to avoid infringement. The Examiner suggests adding limitations that clearly differentiate the two components, i.e. specific photoinitiators, a photoinitiator that does not include the elements that read upon the second component, etc.”

Claim Rejections - 35 USC § 103

7. Claims 1-3, 5-24, 26-32, 34-35, 37-38, 40-41, 43-49, 51-52, 54-55, 57-58, and 60-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha et al or WO'368. The teachings of Ha et al and WO'368 are discussed in detail in the prior office action. In general, the references teach a radiation-curable adhesive composition and disc lacquer for a digital versatile disc (DVD) wherein the adhesive comprises a) UV or radiation curable acrylate component that undergoes polymerization when exposed to radiation, b) a non acrylate functional reactive diluent comprising a component capable of radical polymerization, c) at least one acrylate functional reactive diluent, d) about 0.5wt% to about 10wt% of at least one radical forming sulfur compound, preferably a thiol compound and e) optionally about 0.1wt% to 15wt% of one or more photoinitiators which may be mercaptobenzothiazoles (*formula 2*), mercaptobenzooxazoles (*formula 1*) or hexaryl bisimidazole, wherein the photoinitiator is required for fast UV curing and wherein a mixture of photoinitiators may be utilized. The adhesive may further comprise conventional additives including UV absorbers such as benzotriazole (*formula 10*) (Page 23, line 2.) Hence, Ha et al and WO'368 clearly suggest utilizing compounds in the adhesive that read upon the instantly claimed component in amounts that would provide corrosion inhibiting properties and further, though Ha et al and WO'368 list various compounds that may be utilized as the photoinitiator that also read upon the corrosion

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inhibiting component of the instant invention, one having ordinary skill in the art at the time of the invention would have been motivated to utilize mercaptobenzothiazoles (*formula 2*) or mercaptobenzooxazoles (*formula 1*) wherein Ha et al and WO'368 specifically list these compounds in their claims and hence provide guidance to one having ordinary skill in the art to select either of these compounds. Though Ha et al and WO'368 do not specifically teach the compounds as instantly claimed in Claims 7-10 and 13-14, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize the instantly claimed compounds considering they are structurally and functionally equivalent to those compounds taught by Ha et al or WO'368. Further, with regards to instant Claims 50-61, Ha et al and WO'368 teach one or more photoinitiators is present in sufficient quantity to provide fast cure speed, reasonable cost, good surface through cure and lack of yellowing upon aging with typical amounts, for example, of about 0.1wt% to 15wt%. Hence, the Examiner takes the position that the endpoint amount taught by Ha et al or WO'368 of about 0.1wt% reads upon the amounts as instantly claimed and further, that one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum amount of mercaptobenzothiazoles or mercaptobenzooxazoles and/or photoinitiator to provide the desired cure properties for a particular end use given the reasonable expectation of success wherein Ha et al and WO'368 specifically teach that the amount is a result-effective variable.

Response to Arguments

8. Applicant's arguments filed 2/17/05 have been considered but are not persuasive. The Applicant argues that the prior art does not teach an amount as instantly claimed of no more than about 0.1wt% which amount is sufficient to inhibit corrosion and does not reduce the cure rate or

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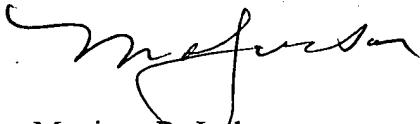
overall cure of the composition. However, as previously stated, the Examiner first notes that considering the compounds provided with amounts in these claims may also read upon the term "photoinitiator", the amounts are moot since amounts in excess of these cited values may be attributed to the photoinitiator. Further, the Examiner takes the position that the amounts taught by the prior art of "about 0.1wt%" reads upon the ranges "no more than **about** 0.1wt%", "no more than 0.1 wt%", "no more than 1 wt%", "up to about 0.05wt%", and "up to about 0.01wt%" given the small quantities and given the absence of a clear showing of unexpected results with regards to these values over the prior art value of about 0.1wt%. Therefore, considering the prior art teaches a value that reads upon the instantly claimed values, it would naturally flow that the cure rate or overall cure of the composition would not be reduced as instantly claimed. Further, as recited above, the prior art clearly teaches that the amount is a result-effective variable affecting the cure properties of the coating composition and hence, one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum amount to utilize.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson
Primary Examiner
Technology Center 1700
June 13, 2005